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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/718,724

11/24/2003

Keon Kim

K-0559

1840

34610 7590 03/01/2007  
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EXAMINER

RIGGLEMAN, JASON PAUL

ART UNIT

PAPER NUMBER

1746

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/01/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/718,724

Applicant(s)

KIM ET AL.

Examiner

Jason P. Riggelman

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-5,7-10,12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-10,12 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's reply filed on 2/8/2007 is acknowledged. Current pending claims are 1, 3-5, 7-10, and 12-13. Claims 1, 3, and 8 are amended. Claims 2, 6, and 11 have been cancelled.
2. Applicant's arguments, filed 2/8/2007, have been fully considered and are persuasive in regards to drawing and specification objections. These objections are withdrawn.
3. Applicant's arguments filed 2/8/2007 pertaining to the 102 rejections have been fully considered but they are not persuasive. Both Onishi et al. (US Patent No. 3548615) and Kim et al. (US Patent No. 6460382) teach that the outside of the rear wall is in "tight" contact with a "whole surface" of the spider opposed to the outside of the rear wall. Also, both teach that the outside of the rear wall has a curved surface. The position remains and the arguments are not persuasive.
4. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 1, 3, and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear as to what constitutes the "whole surface" of the spider.

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1, 3, and 8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The added material which is not supported by the original disclosure is as follows: the disclosure does not specifically state that the whole surface of the spider is in tight contact with the drum surface. Only a cross-section is shown in Fig. 2.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-5, 7-10, and 12-13 are rejected under 35 U.S.C. 102(b) as being unpatentable by Ohnishi et al. (US Patent No. 3548615).

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3. Ohnishi et al. teaches a washing machine, Fig. 2, with a drum 14 having an opening 24 confronting a door 25; a rear wall provided opposite to the opening 24; the rear wall having a circumferential portion protruding more outward than a central portion; and a circumferential wall (the horizontal wall of the drum 14 between the opening and the rear wall). The circumferential portion and the central portion are connected to be slant. A spider is connected at the flange 13 and is in tight contact with an outside of the rear wall; and a drive shaft 12 is connected to the spider. The rear wall can be seen to be of uniform thickness. The edge part of the spider, where it is coupled with the circumferential portion of the rear wall, is thinner than a central part of the spider connected to the driving shaft 12. A cabinet 1 holds the tub 8. A motor 29 is connected to the driving shaft 12. A circumferential part 10 of a rear side of the tub 8 protrudes more outward than a central part of the rear side of the tub 8 penetrated by the driving shaft 12 (Column 3, Lines 8-49).

4. Claims 1, 3-5, 7-10, and 12-13 are rejected under 35 U.S.C. 102(b) as being unpatentable by Kim et al. (US Patent No. 6460382).

5. Kim et al. teaches a washing machine, Fig. 2A-2B and Fig. 9, with a drum 3 having an opening confronting a door 21; a rear wall provided opposite to the opening; the rear wall having a circumferential portion protruding more outward than a central portion; and a circumferential wall, the horizontal wall of the drum 3, between the opening and the rear wall. The circumferential portion and the central portion are connected to be slant. A spider 10 is in tight contact with an outside of the rear wall; and a drive shaft 4 is connected to the spider 10. The rear wall can be seen to be of

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uniform thickness. The edge part of the spider 10, where it is coupled with the circumferential portion of the rear wall, is thinner than a central part of the spider 10 connected to the driving shaft 4. A cabinet 1 holds the tub 2. A motor 5 is connected to the driving shaft 4. A circumferential part of a rear side of the tub 2 protrudes more outward than a central part of the rear side of the tub 2 penetrated by the driving shaft 4 (Columns 4-5, Lines 57-68, 0-27).

### ***Remarks***

6. It is suggested that the applicant amend the claims to be patentably distinct from the prior art. Suggested claim language could be -- the rotational torque transmitted to the drive shaft is distributed across the upper rear wall of the drum and the length of the drum opposing the door opening is at a minimum at the portion where the drive shaft is connected. The spider is contoured to the shape of the rear wall of the drum where it snugly fits and is non-symmetrical with respect to the axis of rotation and has a maximum thickness at a portion surrounding the drive shaft. The slanted wall (x) connecting the inner wall and circumferential portion is at a 45° angle with the rotational axis of the drum for a substantial area of the drum. The slanted wall (y) connecting the rear wall to the circumferential portion on the remaining drum area is at a 10° angle with the rotational axis of the drum and is twice the length of (x). The thickness of x and y are the same.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason P. Riggelman whose telephone number is 571-272-5935. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason P Riggelman  
Examiner  
Art Unit 1746

JPR



**MICHAEL BARR**  
SUPERVISORY PATENT EXAMINER